REMARKS

Claims 1, 3, 6, 9 and 11-13 are currently pending in the application; with claim 1 being independent. Claims 1-13 were pending prior to the Office Action. In the current amendment, claims 1, 3, 6, 9 and 11-12 have been amended, and claims 2, 4, 5, 7, 8 and 10 have been canceled.

The Examiner is respectfully requested to reconsider the rejections in view of the amendments and remarks set forth herein. Applicant respectfully requests favorable consideration thereof in light of the amendments and comments contained herein, and earnestly seeks timely allowance of the pending claims.

Claim Rejections – 35 USC § 112

The Examiner rejected claims 1-13 under 35 U.S.C. § 112, first paragraph, as allegedly failing to comply with the written description requirement. The Examiner stated that the reference to "a first block" is considered to be new matter.

This rejection is respectfully traversed. Applicant has amended claims 1, 3, 6, 9, and 11 to remove the recitation "first block". Specifically, Applicant has amended claim 1 to recite allocating a specific area having a frequently changing information to at least one page in <u>one block</u> of the plurality of blocks. Applicant has amended claims 3, 6, 9, and 11 to recite "said one block".

In view of the above, Applicant respectfully requests reconsideration and withdrawal of the 35 U.S.C. § 112, first paragraph rejection of claims 1, 3, 6, 9 and 11-13.

Claim Rejections – 35 USC §103

Chiba and Lakhani Rejection

The Examiner rejected claims 1, 2, 5, 8, 11 and 13 under 35 U.S.C. § 103(a) as being unpatentable over US 6,411,552 ("Chiba") in view of US 7,123,512 ("Lakhani").

This rejection is respectfully traversed.

Applicant has amended claim 1 to recite recording and erasing information in at least one of the pages in blocks of the plurality of blocks; allocating a specific area having a frequently

changing information to at least one page in one block of the plurality of blocks; and disabling remaining pages in said one block when said allocating step allocates the frequently changing information to said at least one page in said one block, wherein said remaining pages include at least one page.

Claims 2, 5 and 8 have been canceled.

For a Section 103 rejection to be proper, a *prima facie* case of obviousness must be established. *See M.P.E.P. 2142.* One requirement to establish *prima facie case* of obviousness is that the prior art references, when combined, must teach or suggest all claim limitations. *See M.P.E.P. 2142; M.P.E.P. 706.02(j).* Thus, if the cited references fail to teach or suggest one or more elements, then the rejection is improper and must be withdrawn.

Chiba merely discloses a memory allocation system, which includes a block erasing type memory device including a plurality of blocks. The block erasing type memory device is capable of erasing stored data collectively in units of one block. The data processing means includes a formatting portion connected to the block erasing type memory device according to formatting information for substantially coinciding size and position of a cluster as a logical unit of a memory region of the block erasing type memory device (col. 2, lines 11-38; col. 5, 50-60).

Chiba fails to teach or suggest <u>disabling remaining pages in said one block when said allocating step allocates the frequently changing information to said at least one page in said one block, wherein said remaining pages include at least one page</u>, as recited in claim 1. To illustrate that Chiba does not teach the features recited in claim 1, Applicant describes the teachings of Chiba in detail below.

In Chiba, a block has 16 pages (col. 5, lines 54-55). A cluster is a unit of memory consisting of a specified number of pages (col. 8, lines 48-52). In Chiba, a cluster has 16 pages so as to coincide with a block (col. 8, lines 53-55). In another embodiment, a cluster has 8 pages and coincides with half a block (col. 16, line 55). Hence, the contents of pages in a cluster provide information about the contents of pages in a block.

When a cluster has 8 pages in Chiba, the cluster represents half a block. In this half block, a <u>master boot record</u> is written in page 1, pages 2 to 4 are kept as empty regions, a <u>partition boot record</u> is written in page 5, and FAT1 and FAT2 are written in pages 7 and 8 (col. 16, lines 56-

62). The half block may also be written to have the master boot record in page 1, pages 2 and 3 empty, the partition record in page 4, and FAT1 and FAT2 in pages 5 to 8 (col. 16, lines 63-67). In conclusion, a half block, and hence a block, contains a page with a master boot record and a page with a partition boot record, besides FAT pages.

When a cluster has 16 pages in Chiba, a cluster corresponds to one block. In this case, the master boot record is written in page 1, pages 2 to 9 are kept as empty regions, the partition boot record is written in page 10, and FAT1 and FAT2 are written in pages 11 to 16. In another block organization, the master boot record is written in page 1, pages 2 and 3 are kept as empty regions, the partition boot record is written in page 4, and FAT1 and FAT2 are written in pages 5 to 16 (col. 17 lines 1-10). In conclusion, a block contains a page with a master boot record and a page with a partition boot record, besides FAT pages.

Hence, when Chiba allocates FAT (which is frequently changing information) to a page in a block, Chiba does not disable remaining pages in that block. On the contrary, Chiba always allocates a master boot record to a page in the block different from the page that contains the FAT, and a partition boot record to another page in the block.

The master boot record and the partition boot record of Chiba include information which is not frequently changing information. For example, the master boot record includes information of partitions, such as total pages included in each partition (col. 8 lines 20-31), which may be information that is not frequently changing information. The partition boot record also includes information which is not frequently changing information. For example, the partition boot record includes information about the structure of each partition, such as number of pages in a single cluster (item 5 at col. 8 line 43), maximum number of directories which each partition is capable of containing (item 6, col. 8 line 44), number of pages occupied by FAT, and number of FATs (items 7 and 8 at col. 8 lines 46-47). The number of pages in a single cluster is clearly not frequently changing information, because the number of pages in a single cluster is fixed at either 8 pages or 16 pages, in various embodiments. The maximum number of directories which each partition is capable of containing may also be information which is not frequently changing.

The number of pages occupied by FAT, and the number of FATs may also be information that is not frequently changing information, because a predetermined number of

pages may be allocated to FATs, since other pages are allocated to the master boot record and to the partition boot record.

Hence, Chiba does not disable remaining pages in a block when FAT (which is frequently changing information) is allocated to at least one page in the block. On the contrary, Chiba allocates information which is not frequently changing information to at least two remaining pages in the same block (the pages corresponding to the master boot record and partition boot record). In other words, Chiba always allocates FATs to a few pages in a block, and information including non frequently changing information (master and partition boot record) to two other pages in the block. Claim 1, on the other hand, requires allocating a specific area having a frequently changing information to at least one page in one block of the plurality of blocks; and disabling remaining pages in said one block when said allocating step allocates the frequently changing information to said at least one page in said one block, wherein said remaining pages include at least one page.

Applicant will discuss below some of the statements made by Examiner in the Office Action.

Col. 17 lines 64-col. 18 line 5 (discussed on page 2 of the Office Action) in Chiba merely states that a file occupies one or more blocks, and sizes of the FAT and directory are set to the same size as a single block, hence the FAT and directory are stored exactly in a block. The Examiner also stated (page 5 of Office Action, top of page) that Chiba allegedly teaches, at col. 19, lines 48-60, marking FAT area so that other user data cannot be written in area for management information. In fact, col. 19 lines 48-60 and Fig. 16 only indicate that a block (for example blocks 2 and 3 in Fig. 16) may have FAT and/or directory information. This does not teach the allocating and disabling steps of amended claim 1, because claim 1 recites allocating a specific area having a frequently changing information to at least one page in one block of the plurality of blocks; and disabling remaining pages in said one block when said allocating step allocates the frequently changing information to said at least one page in said one block, wherein said remaining pages include at least one page. In Fig. 16, if the directory region represents only frequently changing information, then block 2, for example, does not have disabled remaining pages including at least one page, because all pages in block 2 are occupied by frequently

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changing information. If, on the other hand, the directory region does not represent frequently changing information, then block 2 does not disable remaining pages when frequently changing information (such as FAT) is allocated to at least one page. The remaining pages in block 2, in this case, are occupied by the directory information.

On top of page 3 of the Office Action, the Examiner stated that data other than FAT data is not allowed to be stored in the FAT area in Chiba. As Applicant proved above, data other than FAT data (such as master boot record and partition boot record) is stored in a block. The unused portion of the block mentioned by Examiner on top of page 3 of the Office Action does not include pages with the master and partition boot records. The pages with the master and partition boot records are clearly used for storage of boot records and not for FAT storage.

Col. 2 lines 27-47 of Chiba (mentioned by Examiner on page 4 of Office Action, at the bottom) indicates that data erasing and write-in processing can be rapidly carried out in units of one block ("collectively in units of one block"). This paragraph does not provide any description as to the content of individual pages inside a block. The paragraph merely indicates that all pages of a block (the entire block) may be erased or written-in at once.

Col. 9 lines 36-37 of Chiba (mentioned by Examiner on page 4 of Office Action, at the bottom) merely indicates that the number "1" is allocated to a block in which the FAT is stored as a cluster number. The number "1" of the cluster indicates a block in which the FAT is to be newly stored. This paragraph of Chiba does not describe the pages in which FAT is not stored.

Finally, col. 16 lines 37-47 in Chiba (mentioned by Examiner on page 4 of Office Action, bottom) indicate that FAT and directory may be are allocated in the same cluster or in different clusters. This paragraph does not describe the pages in which FAT is not stored.

The Office Action alleges that Lakhani teaches the missing feature in Chiba. More specifically, the Office Action asserts that Lakhani teaches a method of disabling defective pages in the block. The Office Action also alleges that it would have been obvious to apply Lakhani's disabling method to Chiba's memory allocation method.

Applicant would like to point out that Lakhani's disabling method is used to suppress user access to defective memory blocks while the memory block is being repaired (col. 12, lines 1-15). Lakhani does not teach or suggest disabling remaining pages in said one block when said

allocating step allocates the frequently changing information to said at least one page in said one block, wherein said remaining pages include at least one page.

The word "page" is not mentioned anywhere in Lakhani. Lakhani is only concerned with suppressing user access to defective memory blocks. Hence, Lakhani does not teach a method of disabling defective pages in the block.

Hence, with respect to claim 1, Chiba and Lakhani fail to teach or suggest, at least, "allocating a specific area having a frequently changing information to at least one page in one block of the plurality of blocks; and disabling remaining pages in said one block when said allocating step allocates the frequently changing information to said at least one page in said one block, wherein said remaining pages include at least one page."

For all of the above reasons, taken alone or in combination, Applicant respectfully requests reconsideration and withdrawal of the 35 U.S.C. § 103 (a) rejection of claim 1. Claims 11 and 13 depend from claim 1 and are allowable at least by virtue of their dependency.

Chiba, Lakhani and Estakhri Rejection

Claims 3-4, 6-7, 9-10, 12/5/2/1, 12/6/3/1 and 12/7/4/2/1 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Chiba and Lakhani further in view of Estakhri et al. (US 6,978,342) (hereinafter "Estakhri"). Applicant respectfully traverses.

Claims 4, 7 and 10 have been canceled.

As presented above, Chiba and Lakhani fail to teach or suggest "allocating a specific area having a frequently changing information to at least one page in one block of the plurality of blocks; and disabling remaining pages in said one block when said allocating step allocates the frequently changing information to said at least one page in said one block, wherein said remaining pages include at least one page", as recited in claim 1. In addition, Estakhri fails to teach or suggest the above limitations to supplement Chiba and Lakhani's missing features.

Accordingly, as set forth on page 6 of the Office Action, the Examiner relies on Estakhri as allegedly pertaining to incremental features of the above listed dependent claims. The Examiner's reliance on Estakhri, however, fails to make up for the deficiencies of Chiba and Lakhani discussed above with respect to claim 1. Therefore, the asserted combination of Chiba

and Lakhani and Estakhri (assuming these references may be combined, which Applicant does not admit) fails to establish *prima facie* obviousness of any pending claims.

For all of the above reasons, taken alone or in combination, Applicant respectfully requests reconsideration and withdrawal of the 35 U.S.C. § 103 (a) rejection of claims 3, 6, 9 and 12.

CONCLUSION

In view of the above amendments and remarks, this application appears to be in condition for allowance and the Examiner is, therefore, requested to reexamine the application and pass the claims to issue.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Corina E. Tanasa, Limited Recognition No. L0292 under 37 CFR §11.9(b), at telephone number (703) 208-4003, located in the Washington, DC area, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.14; particularly, extension of time fees.

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Respectfully submitted,

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